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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,351	08/04/2003	Chon Yie Lin	2002B107A	8824

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EXXONMOBIL CHEMICAL COMPANY
5200 BAYWAY DRIVE
P.O. BOX 2149
BAYTOWN, TX 77522-2149

EXAMINER	
LEE, RIP A	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/634,351	LIN ET AL.	
	Examiner	Art Unit	
	RIP A. LEE	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *March 14, 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-12,16,17,20,22,24-33,35,57-62,65-70 and 73-85* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-12,16,17,20,22,24-33,35,57-62,65-70 and 73-85* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action follows a response filed on March 14, 2008. Claims 1, 7, 27-32, 67, 70, 74, 76, 77, 83, and 84 were amended. Claims 1, 2, 4-12, 16, 17, 20, 22, 24-33, 35, 57-62, 65-70, 73-85 are pending.

Claim Rejections - 35 USC § 102 / 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-5, 7-12, 16, 19, 20, 33, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki *et al.* (JP 11-049903).

Sasaki *et al.* discloses a composition comprising 80-99 wt % of a copolymer of ethylene and propylene and 1-20 wt % of a paraffinic oil having a weight average molecular weight if 200-2000, a kinematic viscosity of 20-800 cSt, and a pour point of -40 °C to 0 °C (abstract). The reference does not show a working example of use of ethylene-propylene copolymer, however, it would have been obvious to one having ordinary skill in the art to prepare a composition containing ethylene-propylene copolymer because such an embodiment is within the scope of the invention of Sasaki *et al.*; see also paragraph [0015] which discloses alpha olefin comonomer for preparation of copolymers of the invention. Although the working examples of Sasaki *et al.* disclose use of paraffinic oils that have pour points of -15 °C (Diana PW90) and -10 °C (Diana PW30), it would have been obvious to one having ordinary skill in the art to use a paraffinic oil having a pour point of -40 °C because such an oil exhibits a pour point within the limit set forth by the inventors. Accordingly, one of skill in the art would have expected such an embodiment to work with a reasonable expectation of success. Slip agents are disclosed in paragraph [0020]. Compositions are made into films; see paragraph [0021].

The reference is silent with respect to the relationship between T_m, T_g of the composition and wt % of paraffinic oil, however, in view of the fact that the composition is substantially the

same as that described in the claims, a reasonable basis exists to believe that compositions of Sasaki *et al.* exhibit the claimed relationship. Since the PTO can not perform experiments, the burden is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

3. Claims 1-5, 7-12, 19, 33, 57, 66, 69, 73-77, 80-85 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Tabata *et al.* (JP 9-208761).

Tabata *et al.* teaches a composition comprising 100 parts by weight of a propylene based block copolymer (1-40 wt % propylene homopolymer and 60-99 wt % propylene-ethylene random copolymer components), 40-150 parts by weight of plasticizer, and 20-100 parts by weight of ethylene/α-olefin plastomer containing 2-15 mole % of a C_{4+} alpha olefin comonomer (abstract and claim 1). A useful plasticizer is Lucant HC-40, available from Mitsui Petrochemicals (see paragraph [0041], translated as "roux cant HC-40," see also Table 2).

Material data sheet for Lucant HC-40 is available online at http://www.matweb.com/search/datasheettext.aspx?matid=53279, and an electronic version of this webpage has been provided for Applicant's convenience. This paraffinic oil exhibits a pour point of -40 °C, a KV_{100} of 40 cSt, and a specific gravity of 0.833. The plastomer is Engage 8100 or Engage 8200 (d = 0.870, C_2/C_8 copolymer); see paragraph [0039]-[0041] and Table 2.

Tabata *et al.* is silent with respect to the relationship between T_m, T_g of the composition and wt % of paraffinic oil, however, in view of the fact that the composition is substantially the same as that described in the claims, a reasonable basis exists to believe that compositions of Sasaki *et al.* exhibit the claimed relationship. With respect to plastomer properties, a reasonable basis exists to believe that these exhibit the claimed properties, especially in view of the fact that they are substantially the same as that recited in the claims, namely, same constitution, same density range, and prepared using metallocene catalyst. Since the PTO can not perform experiments, the burden is shifted to the Applicants to establish an unobviousness difference. *In*

re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

4. Claims 33, 65-70, 73-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brant (U.S. 6,639,020) in view of Mikielski *et al.* (WO 01/02482); equivalent U.S. 6,803,415 relied upon for indexing and translation), Meka *et al.* (U.S. 6,399,707), and Bell *et al.* (U.S. 6,787,593).

Brant teaches a plasticized polypropylene composition comprising 50-99.9 wt % of polypropylene, 0.1-50 wt % of ethylene copolymer having M_w in the range of 500-10,000, and up to 20 wt % of modifier. Polypropylenes include polypropylene homopolymer, copolymers, and reactor blends.

The ethylene copolymers have a T_g of from about -80 °C to about -30 °C (col. 5, lines 25-28). For example, "copolymer 5" in Table 2 has a T_g of -76 °C and a viscosity of 200 cP at 90 °C. Since T_g is -76 °C, the polyolefin would have a pour point of less than -30 °C. The density of the polymer is not shown, however, it is reasonable to expect that polyolefins have a density in the range of 0.80-0.90 g/cm^3. Kinematic viscosity is defined as the ratio of viscosity to density. The polyolefin has a viscosity of 200 cP = 2 P = 2 g/cm-sec. Dividing by a density of 0.80 g/cm^3 yields a kinematic viscosity of 2.5 cm^2/sec = 2.35 St = 235 cSt. Thus, it is reasonable to conclude that the polyolefin exhibits a kinematic viscosity greater than the cited minimum value of 10 cSt even at 100 °C.

Polypropylenes of the invention may be blended with other polymers, particularly with other polyolefins. These include ethylene plastomers commercially available as EXACT, AFFINITY, and ENGAGE resins (col. 8, lines 1-4). Modifiers include slip agents (col. 8, line 10). Articles include films, sheet, and fiber (col. 9, lines 55-65).

Brant is silent with respect to the specific type of plastomer, however, at the time of the instant invention, use of plastomers contemplated by Brant was well known in the art. For example, Mikielski *et al.* teaches use of ethylene-octene copolymer (MFR = 1 g/10 min, M_w/M_n = 2.4), commercially available as EXACT 8201, as plastomer for preparing flexible propylene compositions (col. 6, lines 10-19). The prior art of Meka *et al.* teaches use of ethylene-hexene

copolymer, commercially available as EXACT 4150, as plastomer for preparing impact copolymer compositions (col. 5, lines 8-20). Bell *et al.* discloses use of EXACT 4150 for the same purpose; the reference discloses plastomer properties as: d = 0.985, MFR = 3.5 g/10 min (col. 2, line 56). Thus, it would have been obvious to one having ordinary skill in the art to use the plastomers shown in Mikielski *et al.*, Meka *et al.*, and Bell *et al.* in the composition of Brant. The combination is obvious because Brant discloses use of plastomer and instructs the reader to use an EXACT plastomer, and the secondary references furnish the otherwise obvious missing element.

With respect to plastomer properties, a reasonable basis exists to believe that plastomers disclosed in the secondary references exhibit the claimed properties, especially in view of the fact that they are substantially the same as that recited in the claims, namely, same constitution, same density range, and prepared using metallocene catalyst. Since the PTO can not perform experiments, the burden is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

5. Claims 17-26, 28-32, 35, 60, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brant (U.S. 6,639,020) in view of Meka *et al.* (U.S. 3,999,707).

Brant teaches a plasticized polypropylene composition comprising 50-99.9 wt % of polypropylene, 0.1-50 wt % of ethylene copolymer having M_w in the range of 500-10,000, and up to 20 wt % of modifier. Polypropylenes include polypropylene homopolymer, copolymers, and reactor blends.

The ethylene copolymers have a T_g of from about -80 °C to about -30 °C (col. 5, lines 25-28). For example, "copolymer 5" in Table 2 has a T_g of -76 °C and a viscosity of 200 cP at 90 °C. Since T_g is -76 °C, the polyolefin would have a pour point of less than -30 °C and at least as low as -50 °C. The density of the polymer is not shown, however, it is reasonable to expect that polyolefins have a density in the range of 0.80-0.90 g/cm^3. Kinematic viscosity is defined as the ratio of viscosity to density. The polyolefin has a viscosity of 200 cP = 2 P = 2 g/cm-sec. Dividing by a density of 0.80 g/cm^3 yields a kinematic viscosity of 2.5 cm^2/sec = 2.35 St = 235 cSt. Thus, it is reasonable to conclude that the polyolefin exhibits a kinematic viscosity greater than the cited minimum value of 10 cSt even at 100 °C.

Brant is does not elucidate "reactor blend," however, one having ordinary skill in the art would have found it obvious that this art-recognized term equates to an impact copolymer. The prior art of Meka *et al.* is instructive. The inventors disclose impact copolymer comprised of 78-95 wt % of homopolypropylene and 5-22 wt % of ethylene-propylene copolymer in which the ethylene content is less than 50 wt % (claim 1). The polymerization process is outlined in column 5, lines 21-44, and the impact copolymer end-product is a reactor blend. Since the invention of Brant relates to polypropylene compositions, and Meka et al. discloses polypropylene reactor blend, the combination of references would have suggested to one of ordinary skill in the art that Brant is fully intending of use of polypropylene impact copolymer as the reactor blend. Thus, it would have been obvious to one having ordinary skill in the art to use the impact copolymer of Meka *et al.* as the polypropylene component in the composition of Brant. The combination is obvious because Brant discloses use of reactor blend, and Meka *et al.* furnishes the otherwise obvious missing element.

The reference is silent with respect to the relationship between T_m, T_g of the composition and wt % of paraffinic oil, however, in view of the fact that the composition is substantially the same as that described in the claims, a reasonable basis exists to believe that compositions of Sasaki *et al.* exhibit the claimed relationship. Since the PTO can not perform experiments, the burden is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1, 2, 4-12, 16, 17, 20, 22, 24-33, 35, 57-62, 65-70, and 73-85 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-33, 35, and 57-89 of copending Application No. 11/433,623. Although the conflicting claims are not identical, they are not patentably distinct from each other because of substantial overlapping subject matter. Both inventions are drawn to essentially the same composition comprising 60-99.9 wt % of propylene and 0.1-40 wt % of non-functionalized plasticizer that is a C_6-C_{200} paraffin and having a pour point of less than -30 C^o and KV_{100} = 10-500 cSt.

8. Claims 17, 20, 22, 24-33, 35, 60, and 61 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 17-55 (see in particular claim 38) of copending Application No. 11/406,926. Although the conflicting claims are not identical, they are not patentably distinct from each other because to essentially the same composition comprising 60-99.9 wt % of propylene and 0.1-40 wt % of non-functionalized plasticizer that is a C_6-C_{200} paraffin and having a pour point of less than -30 C^o and KV_{100} of greater than 10 cSt.

9. Claims 1, 2, 4-12, 16, 17, 20, 22, 24-33, 35, 57-62, 65-70, and 73-85 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 79-105, 107, 121-126, 208, 212, 214, 216, 220, 223, and 225 of copending Application No. 10/640,435. Although the conflicting claims are not identical, they are not patentably distinct from each other because of substantial overlapping subject matter. Both inventions are drawn to essentially the same composition comprising 60-99.9 wt % of propylene and 0.1-40 wt % of non-functionalized plasticizer that is a C_6-C_{200} paraffin and having a pour point of less than -30 C^o and KV_{100} of greater than 10 cSt.

These are provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1, 2, 4-12, 16, 17, 20, 22, 24-33, 35, 57-62, 65-70, and 73-85 are directed to an invention not patentably distinct from claims of commonly assigned Applications No. 11/433,623, 11/406,926, and 10/640,435 for the same reasons set forth in paragraphs 7-9, *supra*.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned applications, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned **at the time the invention in this application was made**, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

Terminal Disclaimer

10. The terminal disclaimers filed on March 14, 2008, disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of copending Applications No. 11/433,623, 11/406,926, and 10/640,435, have been entered into the record, however, at the time of this office action, they have not been approved officially.

Response to Arguments

11. The rejection of claims under 35 U.S.C. 112, 2nd paragraph, set forth in the previous office action dated November 16, 2007 has been withdrawn in view of Applicant's explanations and claim amendments. Examiner is in agreement, and the rejection has been withdrawn. Examiner thanks Applicant for clarifying this issue on the record.

The rejection of claims over Iwasaki *et al*. has been overcome by amendment. As elucidated by Applicant, even if Lucant HC-10 were remaining in the polypropylene (PP) base resin after lyophilization, the maximum amount would be (60 g/640 g colorant)(5 g colorant/100 g PP) = 0.4 g/100 g PP, which lies outside the claimed range.

The rejection of claims over Brant has been overcome by amendment; claims exclude the plasticizer component of Brant.

The provisional obviousness-type double patenting rejections remain because terminal disclaimers have met approval within the Office. However, upon notice that terminal disclaimers are proper, the obviousness-type double patenting rejections will be withdrawn. Applicant is reminded to include a showing that the inventions were commonly owned at the time the invention in this application in order to preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu S. Jagannathan, can be reached at (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/Rip A. Lee/
Art Unit 1796

June 18, 2008